

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1.-13. canceled.

14. (currently amended): A method of measuring the textural similarity of images, the method comprising.

automatically determining a statistical dissimilarity ($d(i, j)$) between the images (i, j);

and

automatically determining a perceptual dissimilarity ($\hat{d} |P^{(i)} - P^{(j)}|$)

between the images; and

automatically determining a textural dissimilarity ($D(i, j)$) ~~without input from a user,~~
based on the statistical dissimilarity ($d(i, j)$) and a function of the perceptual dissimilarity
($\hat{d} |P^{(i)} - P^{(j)}|$) where \hat{d} is a function whose value is dependant on a range and magnitude of
the perceptual dissimilarity,

wherein a computation of the textural dissimilarity does not require any input from a user.

15. (previously presented): A method according to claim 14, wherein determining the
perceptual dissimilarity ($|P^{(i)} - P^{(j)}|$) comprises:

determining quantitative measurements ($P^{(i)}, P^{(j)}$) of the textural regularity of the respective images (i, j); and

determining the difference between said quantitative measurements ($P^{(i)}, P^{(j)}$).

16. (previously presented): A method according to claim 14, wherein the textural dissimilarity ($D(i, j)$) is a value proportional to the statistical dissimilarity ($d(i, j)$) when the perceptual dissimilarity ($|P^{(i)} - P^{(j)}|$) is not larger than a predetermined threshold.

17. (previously presented): A method according to claim 14 wherein the degree of influence of the statistical dissimilarity on the textural dissimilarity ($D(i, j)$) is determined based on the magnitude of the perceptual dissimilarity ($|P^{(i)} - P^{(j)}|$) when the perceptual dissimilarity ($|P^{(i)} - P^{(j)}|$) is greater than a predetermined threshold.

18. (previously presented): A method according to claim 14, wherein the textural dissimilarity $D(i, j)$ is determined according to the equation $D(i, j) = d(i, j) + \alpha \hat{d}(P^{(i)}, P^{(j)})$ where α is a predetermined scaling factor and \hat{d} is a function defined as:

$$\hat{d}(P^{(i)}, P^{(j)}) = \begin{cases} 0 & |P^{(i)} - P^{(j)}| \leq 1 \\ |P^{(i)} - P^{(j)}| & |P^{(i)} - P^{(j)}| > 1 \end{cases}$$

19. (currently amended): A computer-readable recording medium storing a computer program for executing a method of measuring the textural similarity of images, wherein the method comprises:

automatically determining a statistical dissimilarity ($d(i, j)$), between the images (i, j);

and

automatically determining a perceptual dissimilarity ($|P^{(i)} - P^{(j)}|$)

between the images and

automatically determining a textural dissimilarity ($D(i, j)$), ~~without input from the user,~~
based on the statistical dissimilarity ($d(i, j)$) and a function of the perceptual dissimilarity
($\hat{d}(|P^{(i)} - P^{(j)}|)$) where \hat{d} is a function whose value is dependant on a range and magnitude of
the perceptual dissimilarity

wherein a computation of the textural dissimilarity does not require any input from a user.

20. (previously presented): A computer-readable recording medium according to claim 19, wherein the method comprises determining said textural dissimilarity $D(i, j)$ in accordance with the equation $D(i, j) = d(i, j) + d(i, j)^{\alpha d(P^{(i)}, P^{(j)})}$, where α is a predetermined scaling factor and the function d is defined as:

$$\hat{d}(P^{(i)}, P^{(j)}) = \begin{cases} 0 & |P^{(i)} - P^{(j)}| \leq 1 \\ |P^{(i)} - P^{(j)}| & |P^{(i)} - P^{(j)}| > 1 \end{cases}$$

21. (currently amended): An apparatus for measuring the textural similarity of images, the apparatus comprising:

means for automatically determining a statistical dissimilarity ($d(i, j)$) between the images (i, j); and

means for automatically determining a textural dissimilarity ($D(i, j)$), ~~without input from a user,~~ based on the statistical dissimilarity ($d(i, j)$) and a function of the perceptual dissimilarity ($\hat{d}(|P^{(i)} - P^{(j)}|)$) where \hat{d} is a function whose value is dependant on a range and magnitude of the perceptual dissimilarity

wherein a computation of the textual dissimilarity does not require any input from a user.

22. (previously presented): An apparatus according to claim 21, wherein the means for determining the perceptual dissimilarity ($\hat{d}(|P^{(i)} - P^{(j)}|)$) comprises:

means for determining quantitative measurements ($P^{(i)}, P^{(j)}$) of the textural regularity of the respective images (i, j); and

means for determining the difference between said quantitative measurements ($P^{(i)}, P^{(j)}$).

23. (previously presented): An apparatus according to claim 21, wherein the means for determining the textural dissimilarity ($D(i, j)$) is configured to determine the textural dissimilarity ($D(i, j)$) as a value proportional to the statistical dissimilarity ($d(i, j)$) when the perceptual dissimilarity ($|P^{(i)} - P^{(j)}|$) is not larger than a predetermined threshold.

24. (previously presented): An apparatus according to claim 21, wherein the means for determining the textural dissimilarity ($D(i, j)$) is configured to control the degree of influence of the statistical dissimilarity on the textural dissimilarity ($D(i, j)$) in dependence on the magnitude of the perceptual dissimilarity ($|P^{(i)} - P^{(j)}|$) when the perceptual dissimilarity ($|P^{(i)} - P^{(j)}|$) is greater than a predetermined threshold.

25. (previously presented): An apparatus according to claim 21, wherein the means for determining the textural dissimilarity $D(i, j)$ is configured to determine the textural dissimilarity $D(i, j)$ according to the equation $D(i, j) = d(i, j) + \hat{d}(P^{(i)}, P^{(j)})$, where α is a predetermined scaling factor and \hat{d} is a function defined as:

$$\hat{d}(P^{(i)}, P^{(j)}) = \begin{cases} 0 & |P^{(i)} - P^{(j)}| \leq 1 \\ |P^{(i)} - P^{(j)}| & |P^{(i)} - P^{(j)}| > 1 \end{cases}$$

26. (new): A method of measuring a similarity between texture feature of a first image and a second image, the method comprising the steps of:

computing a statistical dissimilarity between the first and second images using a statistical descriptor;

computing a perceptual dissimilarity between the first and second images;

and

computing a dissimilarity between the texture feature of the first and second images based on the statistical dissimilarity and the perceptual dissimilarity.

27. (new): A method according to claim 26, wherein computing the statistical dissimilarity comprises:

determining quantitative measurements of the textural regularity of the respective images;
and
determining the difference between said quantitative measurements.

28. (new): A method according to claim 26, wherein the dissimilarity between the texture feature of the first and second images is a value proportional to the statistical dissimilarity when the perceptual dissimilarity is not larger than a predetermined threshold.

29. (new) A method according to claim 26, wherein the degree of influence of the statistical dissimilarity on the dissimilarity between the texture feature of the first and second images is determined based on the magnitude of the perceptual dissimilarity when the perceptual dissimilarity is greater than a predetermined threshold.